[redacted]

ANACONDA

T. R. Beck
General Manager

August 11, 1977

Mr. I. E. Peacock
Pueblo of Laguna
P. O. Box 194
Laguna, NM 87026

Dear Mr. Peacock:

The Anaconda Company is submitting a request for a change in the original Mining and Reclamation Plan for the P-15 and P-17 Underground Mines.

Five copies of the variance are being sent to the U. S. Geological Survey. Accompanying are nine copies of the variance for the use of your committee.

We appreciate the concern and cooperation you have shown to assist us in getting this project underway as soon as possible. If there is further information you desire, please let me know.

Very truly yours,

T R Beck

T. R. Beck

TRB:sr

Enclosure

cc: EAL
ZEA
File

9393345

ANACONDA

T. R. Beck
General Manager

August 11, 1977

Mr. Dale Jones
Mining Engineer
U. S. Geological Survey
Conservation Division
P. O. Box 26124
Albuquerque, NM 88220

Dear Mr. Jones:

We are herewith submitting a request for approval of a change in the mining plans for the P-15 and P-17 Underground Mines.

The text of the request lists the changes in detail as referred to our previous Mining Plan submitted on March 8, 1976.

Five copies each are enclosed of the request, two maps, and two archeological survey reports.

Very truly yours,

T R Beck

T. R. Beck

TRB:sr

Enclosure

cc: Mr. I. E. Peacock (9 w/enc.)

ANACONDA

T. R. Beck
General Manager

DESCRIPTION OF REQUEST
FOR CHANGES IN MINING PLAN

The Anaconda Company is applying for approval for a change in the mining and reclamation plans for the P-15 and P-17 Underground Mines as set forth in the Code of Federal Regulations, Title 25, Part 177.7 (f), Title 30, Part 231.10(e), and other applicable regulations. The original mining plans were submitted for approval on March 8, 1976, and supplemented by the submission of additional information by letters through June 24, 1976.

The change in mining plans consists of the elimination of the two shafts that were to give separate access to the two mines, for which we propose the substitution of an adit from which both mines will be developed and mined as one mine, hereafter called P-15/17 Underground Mine. The choice of an adit is the result of extensive studies and our favorable experience in the P-10 Underground Mine. The P-10 Mine, in operation since April, 1975, used a decline for access rather than the three shafts that were originally proposed.

The advantages of an adit are that it will allow quicker access to the ore bodies with less capital expenditure; it will permit simultaneous development of both mines; it will allow consolidation of the necessary surface access facilities into one central location for greater ease of operation; it will permit closer environmental control and subsequent future reclamation by centralization of activities; it protects the aesthetic value of the area by the unobtrusive placement of surface facilities in North Oak Canyon rather than having two conspicuous headframes on Black Mesa; and it eliminates conflicing traffic across State Highway 279 that would have been necessary to transport ore, waste rock, and supplies to and from the shafts.

Description of Request for
Changes in Mining Plan (Con't)

This application will be presented in two parts:

Part 1 consists of amendments to specific portions of the mining and reclamation plan as stated in your P-15, P-17 Environmental Analysis, to be presented by following the format of that report; and

Part 2 is a submittal of plans and statements in compliance with the stipulations on pages 57, 58, and 59 in that Environmental Analysis.

Accompanying are five copies of two plan maps. A surface map shows the topography, drainage, and the existing and proposed surface facilities. A second map shows the general location of the known ore bodies, the adit access, general underground rail haulage drift plan, and the ventilation holes.

Unless so stated or amended by this application, all previous information that has been submitted relative to the mining and reclamation plans for the P-15, P-17 Underground Mines is valid and true to the best of our knowledge.

PART 1. AMENDMENTS

I. Description of the Proposed Action

A. Introduction (page 2, paragraph 3)

Implementation of the proposed action would result in one underground uranium mine designated as the P-15/17 Underground Mine. ... The P-15/17 Mine would take about five years to develop and mine the estimated 1,112,310 tons of uranium ore...

B. P-15 Mine (page 3)

P-15/17 Mine

The P-15/17 Mine workings would be located adjacent to the southernmost end of the P10 Mine, and they would extend southward for approximately 8100 feet. A double-track adit with a finished cross section of 10 by 14 feet or two smaller parallel adits with comparable capacity would be driven at an average positive grade of 1 per cent for a total completed distance of 4640 feet. The portal would be located in North Oak Canyon and the bearing of the adit would be southwest under Black Mesa. This adit would serve as the haulageway for transporting ore and waste rock to the surface, and would provide access to the mine for personnel and supplies. The adit would also serve as a source of supply of air to the mine workings for proper ventilation. A contractor would be engaged to drive the adit, cut the service stations, and do part of the subsequent drift and raise development.

(page 4, paragraph 2) About 200,000 to 268,000 CFM of fresh air would be required by the mine during full production.

(page 4, paragraph 3) Vent hole #6, which would be located at the southwestern extremity of the adit, would be equipped with a small hoist and torpedo-type cage to provide a second independent exit from the mine.

(page 5, paragraph 2) Surface drilling indicates that the P-15/17 Mine contains an estimated 1,112,310 tons of uranium ore. According to the plan, driving of the adit will commence in 1977 with ore production beginning in January, 1979. The life of the mine would be about five years, and about 200 people would be employed during the period of maximum production of about 950 tons per day.

(page 5, paragraph 3) Access to the mine would be provided by a road about 30 feet wide off the south rim of North Oak Canyon. This road would be used by light vehicular traffic and would be about 2200 feet long and would occupy about 1.5

Part 1. Amendments (Con't)

acres. Another road about 60 feet in width would exit over the north rim of the canyon and would connect with the present system of open pit roads. This road would be used by off-highway trucks to transport ore and waste rock and major supplies. It would have a total length from the mine to the stockpile area of about 7900 feet, of which about 4300 feet would be new road that would occupy an area of about eleven acres.

(page 5, paragraph 4) The mine yard would consist of two working areas: a portal yard containing facilities for transferring ore and waste rock from underground railroad cars to surface trucks that would occupy about two acres, and a service yard that would contain the surface buildings and supplies that would occupy about eight acres. Approximately 120,000 cubic yards of fill material will be required to level both areas. At the beginning of site preparation activity, topsoil from these areas would be removed and stored for use in reclaiming the disturbed areas at the end of mining operations. A combination office-change house (about 125 by 50 feet,) a shop (about 30 by 30 feet) would be the main buildings erected within the mine yard.

(page 6, paragraph 2) Two surface settling ponds, each measuring about 10 feet deep by 15 feet wide by 30 feet long with a capacity of about 67,000 gallons, would be constructed at the adit portal area. Each of the ponds would be lined with impervious clay, plastic, or concrete. Groundwater from the mine workings would be collected in underground settling sumps at the terminal end of the adit to the surface ponds. The surface ponds will be continually pumped and cleaned in alternation, with the pumped water carried by pipeline to join the present P-10 pipeline for discharge into holding ponds in the open pit. The surface ponds would also receive rainfall runoff from the ore transfer area. The pumping system will be provided with back-up pumps and electrical power.

(page 7, paragraph 2) One sewage lagoon measuring about 450 feet long by 150 feet wide would be constructed south of the service yard. The lagoon would occupy about 1.5 acres and would be of sufficient capacity to dispose of all organic wastes from the mine facilities.

(page 7, paragraph 3) Potable water for the surface facilities would be provided from the present shop well, and the interior mine water will be supplied from a supplemental well to be located on the surface near the underground terminus of the adit.

Part 1. Amendments (Con't)

(page 7, paragraph 4) Approximately 21,600 feet of surface power lines would be required to bring electricity to the P-15/17 Mine's facilities.

(page 8, paragraph 1) Boring of the 22 ventilation holes would require about 4.2 acres to provide for access roads and drill sites.

(delete Section C. P-17 Mine)

(insert the following paragraph) The explosives storage facilities of the P-10 Mine would also be used for the P-15/17 Mine. Underground magazines would be utilized for the storage of explosives intended for immediate use.

Section D. Ore Processing

(page 12, paragraph 3) The ore produced in the mine will be transported by underground ore trains to the surface through the adit and selectively dumped by ore grade categories into a transfer yard at the portal. Only one or, at most, two days production would be located in the yards at any one time because it is anticipated that the ore will be trucked daily to the existing P-10 stockpile area.

(page 43, paragraph 3)

3. Historical and Archeological Sites

Archeological surveys have been completed for the sites of the vent holes, power lines, and access roads on Black Mesa, and for the area of the adit portal, access roads, and surface facilities throughout North Oak Canyon. Surface facilities have been designed to avoid and preserve as many of the discovered sites as possible. Action is underway to mitigate those sites that will be impacted. It is anticipated that no serious delays will be encountered in doing so.

4. Scenery and Aesthetics

The proposed action would not effect the scenic or aesthetic values of any of the prominent landmarks in the area such as Mount Taylor, the Laguna Pueblo, Mesa Chivato, and the Cibola National Forest. The vent holes and their power lines and access roads on the flank of Black Mesa have only a minor impact. The mine yard, buildings, sewage lagoon and settling ponds will be located in North Oak Canyon out of sight of the general public.

Part 1. Amendments (Con't)

(page 47, paragraph 4) The proposed operation would result in the destruction of the vegetation on about 38 acres of land surface.

(page 51, paragraph 2) delete the last sentence: "Ore haulage trucks would cross Highway 279..."

(page 55, paragraph 3) Surface construction and preparation associated with the proposed mining operations would result in the temporary disturbance of about 38 acres of land surface and the destruction of the vegetation thereon.

PART 2. STIPULATIONS

The Anaconda Company accepts as part of the mining and reclamation plan the nine stipulations stated on pages 57, 58, and 59 of the Environmental Analysis, under section IV. Determination and Recommendations. We submit the following statements of plans and proposals that are required to define Anaconda's compliance with the stipulations.

1. AIRBORNE DUST SUPPRESSION The Anaconda Company will keep airborn dust, especially that created by vehicular traffic on the haulage and access roads, to a minimum by using adequate amounts of water.

2. MONITORING OF SURFACE RUNOFF WATER The surface facilities of the P-15/17 Mine that are capable of influencing the surface water runoff will be concentrated in North Oak Canyon. This is normally a dry stream bed except during the thunderstorm season when appreciable precipitation falls within its 0.96 square miles of watershed above the mine site. The vent holes, power lines, and access roads on Black Mesa are not expected to significantly effect the quantity or quality of the runoff.

Surface runoff waters in North Oak Canyon are confined to a single drainage at and below the location of the portal of the mine. This allows for close and definitive observation of the surface runoff. The Anaconda Company proposes to install an automatic water sampler and a measuring weir for monitoring stream flow in the canyon downstream from the mine service facilities. A quarterly report of drainage flow data and water quality analyses will be submitted to the Area Mining Supervisor.

3. EROSION PREVENTION AND SURFACE WATER RUNOFF CONTROL

The Anaconda Company will prevent erosion and will control surface runoff water in all areas disturbed by the activities of the P-15/17 Mine. Disturbed areas surrounding the vent holes will be graded and seeded after their installation. Access and haul roads will be built with berms, ditches, water bars, and turnouts to control runoff. The mine yard and surface facilities will be provided with ditches and berms for their protection and constructed in such a manner as to prevent concentrations of water flow that could cause erosion.

4 & 5. MONITORING AND REPORTING GROUND WATER

The quantity and quality of the groundwater in the P-15/17 Mine area will be monitored and reported by Anaconda.

Part 2. Stipulations (Con't)

The quantity of water to be encountered in the mine is expected to be minimal because it is immediately up-dip from the present P-10 mine on the north, and to the south the workings will almost reach to an essentially nonrecharging outcrop. Any changes in the water content of the Jackpile sandstone-acquifer caused by activity in P-15/17 will be noted in the pumping rate of the P-10 Mine and in the yield of the P-10 and Shop wells.

The quality of the water in the undisturbed Jackpile sandstone has been established by samples taken from the P-10 and Shop wells. Subsequent sampling of these wells will provide monitoring for any deleterious effects that mining may have on the quality of the water in the aquifer outside the ore zones.

Quarterly reports of the P-10 Mine pumping rates, P-10 and Shop well yields, and water samples analyses from these sources will continue to be made to the Area Mining Supervisor.

6. SETTLING POND SYSTEM

The Anaconda Company proposes to construct underground settling sumps and two settling ponds at the adit portal to impound mine water for clarification and subsequent pumping to the open pit holding ponds. The two surface ponds will be interchangeable with bypass equipment to allow continuous operation of one pond while the other is cleaned of settled particulate matter. The pumping system for the ponds will have backup pumps and an auxiliary electrical supply in the event of power failure.

The mine yard will have ditches around the toe of the hill and interior berms to control rainfall runoff. The sewage lagoons will be isolated downhill from the mine yard and will also be protected by ditches and berms on the perimeter to divert runoff.

7. ARCHEOLOGICAL CLEARANCE

Archeological surveys have been completed for the sites of the vent holes, power lines, and access roads on Black Mesa, and for the area of the adit portal, access roads, and power lines throughout North Oak Canyon. The accompanying map of surface facilities shows the areas surveyed and the sites of the occurrences found during the surveys. Surface facilities have been designed to avoid and preserve as many of the discovered sites as possible. Action is now underway to mitigate those sites

Part 2. Stipulations (Con't)

that cannot be avoided. It is anticipated that no serious delays will be encountered in doing so.

8. CAMOUFLAGE

Surface facilities on Black Mesa such as vent tubes and fan housings will be painted a dark color to reduce their visibility. Road fill and berms will be covered with local material of a color compatible with their surroundings.

9. WARNING SIGNS

Adequate warning signs and speed limits will be posted where necessary to control traffic in the mine area and at crossing points with Highway 279.

10. SUBSIDENCE SURVEYS

A subsidence survey would be established prior to the start of excavation and continued as long as practicable to monitor any surface effects of mining. This subsidence survey would be designed to adequately monitor such sensitive areas as the more shallow portion of the adit near the portal and the crossing of State Highway 279. Quarterly reports of the results of these surveys will be made to the Area Supervisor.